

IN THE CLAIMS

1. (Currently Amended) A Rotor assembly for an electrical machine, comprising:  
a rotor body of generally substantially cylindrical shape having ~~a substantially cylindrical~~ an  
outer surface configured for facing an air-gap between the rotor assembly and a stator of the  
electrical machine, and  
a plurality of permanent magnets embedded in said rotor body,  
wherein the outer surface of the rotor body defines at least one groove ~~grooves are formed in~~  
~~said air-gap facing surface~~ for manipulating the distribution of magnetic flux ~~created by of~~  
said permanent magnets.
2. (Currently Amended) ~~Rotor~~ The rotor assembly according to claim 1, wherein the embedded  
magnets extend substantially radially through said rotor body ~~and said grooves are provided~~  
~~in the neighborhood of the end faces of at least some of the permanent magnets.~~
3. (Currently Amended) ~~Rotor~~ The rotor assembly according to claim 1, wherein ~~skewed~~  
~~grooves are formed in said air-gap facing surface of the rotor body which extend along the~~  
~~length of said~~ at least one groove axially extends along the outer surface in an approximately  
axial direction of the rotor body.
4. (Currently Amended) ~~Rotor~~ The rotor assembly according to claim 1, wherein the rotor body  
~~is formed from~~ further comprises a plurality of cylindrical laminations (10), ~~each lamination~~  
~~having an air-gap facing surface (16) in which notches (20) are formed at irregular angular~~  
~~intervals, wherein said laminations are arranged on top of each other such that the notches~~  
~~(20) are not perfectly aligned.~~
5. (Cancelled.)
6. (Currently Amended) A Stator assembly for an electrical machine, comprising:  
a stator body of ~~generally cylindrical shape~~ having ~~a stator yoke (32) and stator poles (42),~~  
said stator poles (42) having end faces facing an air-gap between the stator assembly and a  
rotor of the electrical machine,  
wherein at least one groove ~~grooves (40) are~~ is formed in said end faces of said stator poles

~~(42) for manipulating the distribution of magnetic flux created between said stator body and said rotor of the electrical machine.~~

7. (Currently Amended) The Stator assembly according to claim 6, wherein ~~skewed grooves the at least one groove (40) is skewed are formed in said end faces of the stator poles (42) which extend along the length of said end faces in an approximately axial direction of the stator body.~~
8. (Currently Amended) The Stator assembly according to claim 6, wherein the stator body is ~~formed from~~ further comprises a plurality of laminated sheets (30), each sheet including a yoke section (32) and stator pole sections (34), ~~wherein notches (36) are formed at irregular radial intervals in the end faces of the pole sections, wherein said laminated sheets (30) are arranged on top of each other such that the notches (36) are not perfectly aligned.~~
9. (Cancelled.)
10. (Cancelled.)
11. (Cancelled.)
12. (New) The rotor assembly according to claim 1, wherein said groove is disposed about an end face of at least ~~some of the~~ one of said permanent magnets.
13. (New) The rotor assembly according to claim 4, wherein each lamination includes at least one notch (20) on a surface thereof.
14. (New) The rotor assembly according to claim 13, wherein a plurality of laminations each including at least one notch are arranged on the rotor body to form a groove (20).
15. (New) The rotor assembly according to claim 14, wherein said groove (20) is axially aligned with an axis of the rotor.
16. (New) The rotor assembly according to claim 14, wherein said groove (20) is not axially aligned with an axis of the rotor.

17. (New) The rotor assembly according to claim 14, wherein said groove (20) is skewed with respect to an axis of the rotor.
18. (New) The Stator assembly according to claim 6, wherein the at least one groove extends along the length of said end faces (42) about the axial direction of the stator body.
19. (New) The Stator assembly according to claim 8, wherein the end face of at least one pole section defines a notch (36).
20. (New) The Stator assembly according to claim 19, wherein said laminated sheets (30) are arranged such that the at least one groove (40) extends along an axial length of the stator assembly.
21. (New) The Stator assembly according to claim 19, wherein said at least one groove (40) extending along the axial length of the stator assembly is skewed.
22. (New) The Stator assembly according to claim 6, further comprising a rotor.
23. (New) The Rotor assembly according to claim 1, further comprising a stator.
24. (New) An electrical machine comprising a substantially cylindrical stator 118 concentrically aligned with a rotor 116, the outer surface of the rotor 116 and the inner surface of the stator 118 defining a substantially cylindrical gap, the gap having a plurality of protrusions 20 for manipulating an internal magnetic flux.
25. (New) The electrical machine of claim 24, wherein the plurality of protrusions are defined by a groove in at least one of the outer surface of the rotor or the inner surface of the stator.
26. (New) The electrical machine of claim 24, wherein the stator further comprises at least one stator pole.
27. (New) The electrical machine of claim 24, wherein the plurality of protrusions extend axially along the length of the gap.

28. (New) The electrical machine of claim 24, wherein the plurality of protrusions skewedly extend along the length of the gap.
29. (New) An electric motor comprising a stator substantially housing a rotor, the rotor having an outer surface and a body, the body adapted to receive at least one magnetic element (12) and the outer surface having a notch (20) formed thereon.
30. (New) The electric motor of claim 29, wherein the rotor further comprises several layers (10) of lamination.
31. (New) The electric motor of claim 29, wherein the outer surface has a plurality of notches.
32. (New) The electric motor of claim 31, wherein the plurality of notches are randomly distributed on the outer surface 16 of the rotor.
33. (New) The electric motor of claim 29, wherein the notch (20) forms a groove along an axial length of the rotor.
34. (New) The electric motor of claim 33, wherein the groove is skewed with respect to an axis of the motor.
35. (New) An electric motor comprising a stator (38) for receiving a rotor, the stator (38) having a plurality of poles 34 stemming from the stator body toward the rotor, the rotor having an outer surface facing the plurality of poles; wherein at least one of said poles defines a groove (40) at an end surface facing the outer surface of the rotor.
36. (New) The electric motor of claim 35, wherein the groove extends axially along an axis of the stator.
37. (New) The electric motor of claim 35, wherein the groove extend skewedly along an axis of the stator.
38. (New) The electric motor of claim 35, wherein the groove manipulates a magnetic flux of the rotor.